

# Dry Stout

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **23**
- SRM **34.5**
- Style **Dry Stout**

## Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **16.4 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.2 liter(s)**
- Total mash volume **13.6 liter(s)**

## Steps

- Temp **66 C**, Time **70 min**
- Temp **70 C**, Time **10 min**
- Temp **77 C**, Time **5 min**

## Mash step by step

- Heat up **10.2 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **70 min** at **66C**
- Keep mash **10 min** at **70C**
- Keep mash **5 min** at **77C**
- Sparge using **9.6 liter(s)** of **76C** water or to achieve **16.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.5 kg (73.5%)	80 %	5
Grain	Monachijski typ II 20-25 EBC Weyermann	0.5 kg (14.7%)	80 %	20
Grain	Jęczmień palony Weyermann	0.2 kg (5.9%)	55 %	985
Grain	Strzegom Czekoladowy ciemny Weyermann	0.2 kg (5.9%)	68 %	1200

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Fuggles	25 g	60 min	4.5 %
Boil	Fuggles	10 g	15 min	4.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Liquid	1000 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Water Agent	węglan wapnia	5 g	Mash	60 min

## Notes

- fermentacja 15-19 C  
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